

PROPOSED CLAIM AMENDMENTS DISCUSSED
DURING INTERVIEW ON 05/20/2009

PROPOSED AMENDMENT:

FOR INTERVIEW PURPOSES ONLY, NOT TO BE ENTERED

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AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A two-sides in-mold decoration molding die, comprising:

a first mold ~~including~~ comprised of a first cavity located on a first cavity forming face, on which a first decoration film is ~~to-be~~ movably disposed in a first ~~direction and direction~~, parallel to a ~~first~~ the first cavity forming face ~~where the first cavity is provided~~, so as to pass over the first cavity, wherein the first decoration film has a width that covers the first cavity, but is smaller than the first cavity forming face; and

a second mold ~~including~~ comprised of a second cavity, located in a second decoration film passing region of a second cavity forming face, on which a second decoration film is ~~to-be~~ movably disposed in a second direction intersecting the first ~~direction and direction~~, parallel to a ~~second~~ the second cavity forming face ~~where the second cavity is provided~~, so as to pass over the second cavity of the second decoration film passing region, the second mold ~~being provided with further~~ comprising a protruding section, protruded from a surface of a second decoration film non-passing region of the second cavity forming face, with including a runner through which to supply the ~~molten~~ molten resin injected through a sprue to the second ~~cavities~~ cavity, at a position ~~corresponding to a non-passing region of the second decoration film of the second cavity forming face, and being~~ wherein, said second mold is placed so as to oppose the first mold, ~~and being relatively and~~ movable with respect to the first mold so as to be clamped

~~thereto and separated therefrom~~ from the first mold, the second decoration film has a width that covers the second cavity, but is smaller than the second cavity forming face, and the second decoration film passing region is different from the second decoration film non-passing region,

wherein ~~upon when~~ clamping the first mold and the second molds mold, an upper surface of the protruding section and a region of the first decoration film, ~~where the first decoration film does not overlap the second decoration film, contact come close to each other~~, so as to define, in the runner, a molten resin path that guides for guiding the molten resin to pass between the first decoration film and the second decoration films, ~~thereby~~ film, preventing the molten resin from leaking; and, and

the molten resin is injected into the first cavity and the second cavities cavity to produce a molded product to which the first decoration film and the second decoration films film are integrally adhered.

2. (Currently Amended) The two-sides in-mold decoration molding die according to claim 1, wherein a height of the protruding section located in the second decoration film non-passing region of the second cavity forming face ~~the non-passing region of the second decoration film of the second cavity~~ is substantially the same as a thickness of the second decoration film.

3. (Currently Amended) The two-sides in-mold decoration molding die according to claim 1, wherein the protruding section is defined by an insertion hole formed in the second decoration film non-passing region of the second cavity forming face ~~the non-passing region of the second decoration film~~, and a protrusion forming block to be inserted in the insertion hole; and

the protrusion forming block, provided with the runner on an upper surface, thereof is inserted in the insertion hole with an uppermost portion of the protrusion forming block thereof protruding outside to constitute the protruding section.

4. (Currently Amended) The two-sides in-mold decoration molding die according to claim 1, wherein the first and the second molds are respectively provided with inserts oriented such that opposing faces of the inserts constitute the first and the second cavity forming faces when the molds are clamped, and ~~a~~ and die sets for holding the inserts in the molds such that so

as to insert the inserts therein, in which faces of the die sets on the respective molds confronting each other serve as clamping force supporting portions.

5. (Previously Presented) The two-sides in-mold decoration molding die according to claim 4, wherein the first and the second molds are formed such that the first and the second cavity forming faces of the inserts are recessed with respect to the clamping force supporting portions of the die sets.

6. (Currently Amended) A method of manufacturing a two-sides in-mold decoration molded product utilizing a molding die including a first mold and a second mold respectively having a first cavity forming face and a second cavity forming face, respectively, the first cavity forming face and the second cavity forming face being provided with a first cavity and a second cavity, respectively, the method comprising:

disposing a first decoration film on the first mold so as to move in a first direction ~~and~~, parallel to the first cavity forming face where the first cavity is provided, while passing over the first cavity, wherein the first decoration film has a width that covers the first cavity, but is smaller than the first cavity forming face;

disposing a second decoration film on the second mold so as to move in a second direction intersecting the first direction and parallel to the second cavity forming face ~~where the second cavity is provided~~, while passing over the second cavity, located in a second decoration film passing region, the second mold including a runner on the second cavity forming face through which to supply the molten resin to the cavity, and a protruding section formed thereon so as to surround the runner located in a region to be directly opposed to the first decoration film upon clamping the second cavity forming face, such that the second decoration film does not overlap a protruding with not to overlap the protruding section, protruded from a surface of a second decoration film non-passing region of the second cavity forming face, of the second mold with a runner through which to supply a molten resin injected through a sprue to the second cavity at a position corresponding to a portion of a second decoration film non-passing region of the second cavity forming face of the second mold, wherein the second decoration film has a width that covers the second cavity, but is smaller than the second cavity forming face, and the second decoration film passing region is different from the second decoration film non-passing

region:

clamping the first mold and the second mold with the two decoration films held ~~therebetween; between the first mold and the second mold, such that~~ causing an upper surface of the protruding section and a region of the first decoration film, where the first decoration film does not overlap the second decoration film, to contact with each other in a region where ~~only the first decoration film is disposed as a consequence of the clamping, so as to define, in the runner, a molten resin path for guiding the molten resin to pass between the first decoration film and the second decoration film, preventing the molten resin from leaking; and~~

injecting the molten resin, via the runner, into the first cavity and the second cavities cavity so as to form a resin molded product ~~and to~~ and integrally adhere the first decoration film and the second decoration ~~films~~ film to a surface of the resin molded product, ~~while keeping the upper surface of the protruding section and the first decoration film in mutual contact thereby preventing the molten resin from leaking through between the second cavity forming face and the first decoration film.~~

7. (Previously Presented) The method according to claim 6, further comprising:

setting a height of the protruding section located in the second decoration film non-passing region of the second cavity forming face to be substantially the same as a thickness of the second decoration film, ~~causing the protruding section to contact with the first decoration film upon clamping the molds, so that the second cavity forming face and the first decoration film make close contact with each other.~~

8. (Previously Presented) The two-sides in-mold decoration molding die according to claim 2, wherein the protruding section is defined by an insertion hole formed in the second decoration film non-passing region of the second cavity forming face ~~non-passing region of the second decoration film~~, and a protrusion forming block to be inserted in the insertion hole; and the protrusion forming block, provided with the runner on an upper surface, thereof is inserted in the insertion hole with an uppermost portion of the protrusion forming block thereof protruding outside to constitute the protruding section.

9. (New) The two-sides in-mold decoration molding die according to claim 2, wherein

when the first and second molds are clamped, a clearance substantially the same as the thickness of the second decoration film exists between the region of the first decoration film, where the first decoration film does not overlap the second decoration film, and a region not including the protruding section in the second decoration film non-passing region of the second cavity forming face.

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejection and further examination are requested.

Rejection under 35 U.S.C. §103(a):

Claims 1, 5, and 6 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Tsunehisa et al. (JP 2003-053779). This rejection is respectfully traversed and submitted to be inapplicable to the claims for the following reasons.

Independent claim 1 is patentable over Tsunehisa because claim 1 recites a two-sides in-mold decoration molding die including, in part, a second mold with a protruding section, protruded from a surface of a second decoration film non-passing region of the second cavity forming face, wherein when clamping the first mold and the second mold, an upper surface of the protruding section and a region of the first decoration film contact each other, so as to define, in the runner, a molten resin path for guiding the molten resin to pass between the first decoration film and the second decoration film preventing the molten resin from leaking.

One of the features of claim 1 is the protruding section that contacts the first decoration film and prevents the molten resin from leaking. The first and second decoration films overlap in the area over the cavities; therefore there is not a gap. However, where the two films do not overlap in the second decoration film non-passing region, there would be a gap the width of the second decoration film between the first decoration film and the insert. This feature of claim 1 uses a protruding section to eliminate that gap and prevent leakage of the molten resin around the runner. Tsunehisa fails to disclose or suggest this aspect of the present invention.

Tsunehisa discloses a metal pattern configuration for the manufacture of a synthetic resin molded article and a pattern configuration where decalcomania is given to both sides. According to Figure 8, the two films 51,52 overlap and entirely cover the forming surface of the fixed mount 3 and the movable mount 4. The injection hole 3a (depicted as the sharp cone in Figure 8) lines up with the pore 51a in the films 51,52 and injects transparent resin between the films 51,52 to create a molded object as shown in Figures 9(a) – 9(e). The films cover the entire forming face of the mounts 3,4 and the injection hole 3a and pore 51a is located over the films 51,52. However, Tsunehisa does not disclose a second mold with a protruding section, protruded from a

surface of a second decoration film non-passing region of the second cavity forming face, wherein when clamping the first mold and the second mold, an upper surface of the protruding section and a region of the first decoration film contact each other, so as to define, in the runner, a molten resin path for guiding the molten resin to pass between the first decoration film and the second decoration film preventing the molten resin from leaking. As a result, claim 1 is patentable over Tsunehisa.

Independent claim 6 is patentable over Tsunehisa for reasons similar to those discussed above with regard to independent claim 1. Specifically, claim 6 recites disposing a second decoration film on the second mold such that the second decoration film does not overlap a protruding section, protruded from a surface of a second decoration film non-passing region of the second cavity forming face, and clamping the first mold and the second mold, such that an upper surface of the protruding section and a region of the first decoration film contact each other, so as to define, in the runner, a molten resin path for guiding the molten resin to pass between the first decoration film and the second decoration film, preventing the molten resin from leaking. Tsunehisa does not disclose or suggest this feature recited in independent claim 6. As a result, claim 6 is patentable over Tsunehisa.

Claim 5 is indirectly dependent on independent claim 1. Therefore, claim 5 should be allowed if claim 1 is allowed.

Claims 2 and 7 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Tsunehisa et al. (JP, 2003-053779) in view of Ishikawa (JP Pub. 08-025414). This rejection is respectfully traversed and submitted to be inapplicable to the claims for the following reasons.

Ishikawa is relied upon in the rejection as disclosing that the distortion of the metallic mold and breakthrough of molding material can be prevented when clamping force is applied by providing a depression having the same thickness of the film. However, it is apparent Ishikawa fails to disclose or suggest the feature lacking from Tsunehisa discussed above with regard to independent claim 1 and independent claim 6. Accordingly, no obvious combination of Tsunehisa and Ishikawa would result in, or otherwise render obvious under 35 U.S.C. §103(a), the features recited in claim 1 and claim 6. Therefore, claims 2 and 7 are patentable over the combination of Tsunehisa and Ishikawa at least based on their dependency from independent claims 1 and 6, respectively.

Claims 3 and 4 have been rejected under 35 U.S.C. §103(a) as being unpatentable over

Tsunechisa et al. (JP 2003-053779) on view of Pratt et al. (US 5,662,946). This rejection is respectfully traversed and submitted to be inapplicable to the claims for the following reasons.

Pratt is relied upon in the rejection as disclosing that it is advantageous to have an adaptable mold base wherein die inserts, as well as components for transferring molten material into the actual molding chamber, can be removed and replaced from the adaptable mold base. However, it is apparent Pratt fails to disclose or suggest the feature lacking from Tsunechisa discussed above with regard to independent claim 1. Accordingly, no obvious combination of Tsunechisa and Pratt would result in, or otherwise render obvious under 35 U.S.C. §103(a), the feature recited in claim 1. Therefore, claims 3 and 4 are patentable over the combination of Tsunechisa and Pratt at least based on their dependency from independent claim 1.

Claim 8 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Tsunechisa et al. (JP, 2003-053779) in view of Ishikawa (JP Pub. 08-025414) and further in view of Pratt et al. (US 5,662,946).

As discussed above, Tsunechisa, Ishikawa, and Pratt do not disclose or suggest the feature recited in independent claim 1. Accordingly, no obvious combination of Tsunechisa, Ishikawa, and Pratt would result in, or otherwise render obvious under 35 U.S.C. §103(a), the feature recited in claim 1. Therefore, claim 8 is patentable over the combination of Tsunechisa, Ishikawa, and Pratt at least based on its indirect dependency from independent claim 1.

Because of the above-mentioned distinctions, it is believed clear that claims 1-9 are allowable over the references relied upon in the rejection. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of the invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-9. Therefore, it is submitted that claims 1-9 are clearly allowable over the prior art of record.

In view of the above amendment and remarks, it is submitted that the present application is now in condition for allowance. The examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.